# UNCLASSIFIED EXHIBIT R-2, FY 2001 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET

**DATE: February 2000** 

BUDGET ACTIVITY: 5 PROGRAM ELEMENT: 0604217N

PROGRAM ELEMENT TITLE: S-3 Weapon System Improvement

(U) COST: (Dollars in Thousands)

Project Number & Title	FY 1999 <u>Actual</u>	FY 2000 Budget	FY 2001 Estimate	FY 2002 Estimate	FY 2003 Estimate	FY 2004 Estimate	FY 2005 Estimate	To <u>Complete</u>	Total <u>Program</u>
H0489 S-3 WSIP	8,035	5,067	455	438	433	436	446	CONT	CONT
TOTAL*	8,035	5,067**	455	438	433	436	446	CONT	CONT

Quantity of RDT&E Articles

- (U) A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION: The current program provides continuation of a series of progressive modular improvements which began with the S-3 Weapon System Improvement Program (WSIP) Phase I (S-3A modified to S-3B configuration). Based upon the S-3 WSIP Operational Requirement, the full program achieves the required multi-mission operational capability through continuous time-phased, selective mission avionics/processing upgrades that are pursued in priority order. Initial Nunn-funded development focused on the Co-Processor Memory Unit (CPMU) hardware, a joint U.S./Canadian industrial base development program, which provides the core processing capability and open architecture required for future modular S-3B modification. This program will complete CPMU integration and test and rewrite existing Tactical Mission Program (TMP) code into Ada high order language. ADA TMP development and CPMU integration will be leveraged to provide for sensor and connectivity enhancements in conjunction with the S-3B Surveillance System Upgrade (SSU) project.
- (U) JUSTIFICATION OF BUDGET ACTIVITY: This program is funded under Engineering and Manufacturing Development because it encompasses engineering and manufacturing development of new end-items prior to production approval decision.

<sup>\*</sup> Project W2217 Consolidated Support A/C (CSA) has been changed to W2737 "Platform Follow-on Analysis" and moved to PE 0702207N.

<sup>\*\*</sup> FY 00 budget reflects a \$3,000 thousand Congressional add for Surveillance System Upgrade (SSU)executed under H2776, which has been revised by \$16 thousand for an Across-the-Board Congressional recision.

# UNCLASSIFIED EXHIBIT R-2a, FY 2001 RDT&E,N BUDGET PROJECT JUSTIFICATION SHEET

**DATE: February 2000** 

BUDGET ACTIVITY: 5 PROGRAM ELEMENT: 0604217N

PROGRAM ELEMENT TITLE: S-3 Weapon System Improvement

PROJECT NUMBER: H0489
PROJECT TITLE: S-3 WSIP

(U) COST: (Dollars in Thousands)

Project Number & Title	FY 1999 <u>Actual</u>	FY 2000 Budget	FY 2001 Estimate	FY 2002 Estimate	FY 2003 Estimate	FY 2004 Estimate	FY 2005 Estimate	To <u>Complete</u>	Total <u>Program</u>
H0489 S-3 WSIP	8,035	5,067	455	438	433	436	446	CONT	CONT
TOTAL*	8,035	5,067**	455	438	433	436	446	CONT	CONT

Quantity of RDT&E Articles

- (U) A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION: The current program provides continuation of a series of progressive modular improvements which began with the S-3 Weapon System Improvement Program (WSIP) Phase I (S-3A modified to S-3B configuration). Based upon the S-3 WSIP Operational Requirement, the full program achieves the required multi-mission operational capability through continuous time-phased, selective mission avionics/processing upgrades that are pursued in priority order. Initial Nunn-funded development focused on the Co-processor Memory Unit (CPMU) hardware, a joint U.S./Canadian industrial base development program which provides the core processing capability and open architecture required for future modular S-3B modification. This program will complete CPMU integration and test and rewrite existing Tactical Mission Program (TMP) code into Ada high order language.. ADA TMP development and CPMU integration will be leveraged to provide for sensor and connectivity enhancements in conjunction with the S-3B Surveillance System Upgrade (SSU) project.
- (U) PROGRAM ACCOMPLISHMENTS AND PLANS:
  - 1. FY 1999 ACCOMPLISHMENTS:
    - (U) (\$8,035) Continued Ada software development for the CPMU. (LMTDS)
  - 2. FY 2000 PLAN:
    - (U) (\$ 595) Complete Ada software development for the CPMU. (LMTDS)
    - (U) (\$1,500) Ada Developmental integration and testing completes. (NAWC)

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<sup>\*</sup> Project W2217 Consolidated Support A/C (CSA) has been changed to W2737 "Platform Follow-on Analysis" and moved to PE 0702207N.

<sup>\*\*</sup> FY 00 budget reflects a \$3,000 thousand Congressional add for Surveillance System Upgrade (SSU)executed under H2776, which has been revised by \$16 thousand for an Across-the-Board Congressional recision.

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### EXHIBIT R-2a, FY 2001 RDT&E,N BUDGET PROJECT JUSTIFICATION SHEET

**DATE: February 2000** 

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PROGRAM ELEMENT TITLE: S-3 Weapon System Improvement

PROJECT NUMBER: H0489
PROJECT TITLE: S-3 WSIP

- (U) (\$ 900) Software development and Integration effort for the SSU project initiates and completes. (LMTDS)
- (U) (\$ 900) Radar development for SSU project initiates and completes. (Raytheon)
- (U) (\$1,172) SSU related integration and testing initiates and completes. (NAWC)

#### 3. FY 2001 PLAN:

(U) (\$ 455) Support of Ada operational software testing initiates. (NAWC)

#### B. PROGRAM CHANGE SUMMARY

	FY 1999	FY 2000	FY 2001
(U) FY 2000 President's Budget:	4,266	2,095	461
(U) Appropriated Value:	4,376	5,095	
(U) Adjustments from Pres Budget:	+3,769	+2,972	-6
(U) FY 2001 President's Budget Submit:	8,035	5,067	455

#### CHANGE SUMMARY EXPLANATION:

- (U) Funding: The FY 1999 net increase of \$3,769 thousand reflects an increase of \$3,900 thousand to be used for Ada software, a decrease of \$97 thousand for a SBIR assessment and a decrease of \$34 thousand for inflation savings. The FY 2000 net increase of \$2,972 reflects an increase of \$3,000 thousand for Surveillance System Upgrade (SSU) and a decrease of \$28 thousand for an Across-the-Board Congressional recision. The FY 2001 net decrease of \$6 thousand reflects a \$3 thousand decrease for reprioritization of requirements within the Navy and a \$3 thousand decrease for revised economic assumptions.
- (U) Schedule: The schedule was changed to delete all APN CPMU milestones. Ada IV&V substitutes for 2<sup>nd</sup> QTR FY00 FQT because it is more cost effective and more expeditious resulting in an earlier than planned Fleet Introduction.
- (U) Technical: Not Applicable.

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PROJECT NUMBER: H0489
PROJECT TITLE: S-3 WSIP

(U) C. OTHER PROGRAM FUNDING SUMMARY

FY 1999 FY 2000 FY 2001 FY 2002 FY 2003 FY 2004 FY 2005 To Actual Budget Estimate Estimate Estimate Estimate Estimate Complete Appn APN S-3 OSIP (04-96) 6,337 8,962 7,083 5,438 3,050 273 371

Co-Processor Memory Unit

### Related RDT&E

(U) P.E. 0603790D (NUNN Funds)-Co-Processor Memory Unit (CPMU) (previously Mass Memory Unit))

(U) D. ACQUISITION STRATEGY: The Operational Requirements Document (ORD) was signed on 27 March 1997. The Acquisition Plan was number 90-14 and was approved on 17 October 1994. The contract is a Cost Plus Fixed Fee (CPFF) and was awarded to Lockheed Martin, Eagan, MN in 28 July 1995.

(U) E. SCHEDULE PROFILE

<u>FY 1999</u> <u>FY 2000</u> <u>FY 2001</u> <u>TO\_COMPLETE</u>

(U) Program Milestones 1Q/01 ADA Fleet Introduction

(U) Engineering Milestones 2Q/00 Ada IV&V

(U) T&E Milestones 3Q-4Q/00 Ada DT 1Q/01 Ada OT Completes

(U) Contract Milestones

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### EXHIBIT R-3, FY 2001 RDT&E,N COST ANALYSIS

BUDGET ACTIVITY: 5 PROGRAM ELEMENT: 0604217N PROJECT NUMBER: H0489

PROJECT TITLE: S-3 WSIP

Cost Categories: Software Development (Ada)	Contract Method <u>&amp; Type</u> SS/CPFF	Performing Activity & Location LMTDS	Total Prior Yrs <u>Cost</u> 21,596	FY 1999 <u>Cost</u> 8,035	FY 1999 Award Date Nov 98	FY 2000 <u>Cost</u> 595	FY 2000 Award <u>Date</u> Feb 00	FY 2001 <u>Cost</u>	FY 2001 Award <u>Date</u>	Cost to Complete	<b>Total Cost</b> 30,226	Target Value of Contract 30,226
Software Development /INT(SSU)	SS/CPFF	Eagan, MN LMTDS				900	Feb 00				900	900
Radar Development (SSU)	SS/CPFF	Raytheon				900	Feb 00				900	900
Subtotal Product Development Remarks:		McKinney, TX	21,596	8,035		2,395					32,026	32,026
Technical Support (CS)	C/FFP	RBC, VA	100								100	100
Subtotal Support			100								100	100
Remarks:												
INT/Developmental Testing (Ada/SSU)	WX	NAWC Pax River, MD	2,163			2,672	Jan 00	455	Oct 00	CONT	CONT	
Subtotal Test & Evaluation Remarks:			2,163			2,672		455		CONT	CONT	
Travel	WX	NAWC	348							CONT	CONT	
Subtotal Management		Pax River, MD	348							CONT	CONT	
Remarks:												
Total Cost			24,207	8,035		5,067		455		CONT	CONT	

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2000